

DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 1 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 1 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
<p>1) A communication handover method for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of the plurality of access routers, the mobile node being so structured as to communicate with the access router connected with the access points, through radio communication with the access points within the communication available area, the communication handover method comprising:</p>	<p>1) A communication handover method for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of said plurality of access routers, said mobile node being so structured as to communicate with said access router connected with said access points, through radio communication with said access points within said communication available area, said communication handover method comprising:</p>
<p>a storing step of storing correspondence information describing a correspondence relationship between information on the access points and information on the access</p>	<p>a storing step of storing correspondence information describing a correspondence relationship between information on said access points and information on said</p>

router connected to the access points into a predetermined information storage means of the mobile node;	access router connected to said access points into a predetermined information storage means of said mobile node;
a reception step of receiving information on another access point from the another access point when communication is switched over from an access point currently in communication to another access point;	a reception step of receiving information on another access point from said another access point when communication is switched over from an access point currently in communication to said another access point;
an acquisition step of acquiring information on that access router to which the another access point is connected from the correspondence information based on the information on the another access point received at the reception step;	an acquisition step of acquiring information on that access router to which said another access point is connected from said correspondence information based on the information on said another access point;
a determination step of determining from the information on the access router acquired at the acquisition step whether or not changing address information currently assigned in connection of the subnet is necessary when communication is switched from	

the access point currently in communication to the another access point;	
an address hold control step of performing such control as to continuously use the currently assigned address information upon determination that it is not necessary to change the address information at the determination step;	
an address generation step of generating address information in the subnet constituted by the access router from the information on the access router acquired at the acquisition step upon determination that it is necessary to change the address information at the determination step;	an address generation step of generating address information in said subnet constituted by said access router, from the information on said access router acquired at said acquisition step.
an address information transmission step of acquiring address information on the access router from the correspondence information, creating a message including the address	

information generated at the address generation step, and transmitting the message to the access router through the access point currently in communication.	
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3. Claim 2 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 1 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 2 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
1) A communication handover method for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique	2) The communication handover method according to claim 1, comprising:

<p>communication available area are connected to each of the plurality of access routers, the mobile node being so structured as to communicate with the access router connected with the access points, through radio communication with the access points within the communication available area, the communication handover method comprising:</p>	
<p>a storing step of storing correspondence information describing a correspondence relationship between information on the access points and information on the access router connected to the access points into a predetermined information storage means of the mobile node;</p>	
<p>a reception step of receiving information on another access point from the another access point when communication is switched over from an access point currently in communication to another</p>	

access point;	
an acquisition step of acquiring information on that access router to which the another access point is connected from the correspondence information based on the information on the another access point received at the reception step;	
a determination step of determining from the information on the access router acquired at the acquisition step whether or not changing address information currently assigned in connection of the subnet is necessary when communication is switched from the access point currently in communication to the another access point;	
an address hold control step of performing such control as to continuously use the currently assigned address information upon determination	

<p>that it is not necessary to change the address information at the determination step;</p>	
<p>an address generation step of generating address information in the subnet constituted by the access router from the information on the access router acquired at the acquisition step upon determination that it is necessary to change the address information at the determination step;</p>	
<p>an address information transmission step of acquiring address information on the access router from the correspondence information, creating a message including the address information generated at the address generation step, and transmitting the message to the access router through the access point currently in communication.</p>	<p>an address information transmission step of transmitting said address information generated at said address generation step to said access router to which said access point currently in communication is connected, through said access point currently in communication.</p>

4. Claim 3 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably

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distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 1 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 3 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
<p>1) A communication handover method for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of the plurality of access routers, the mobile node being so structured as to communicate with the access router connected with the access points, through radio communication with the access points within the communication available area, the communication</p>	<p>3) A communication handover method for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of said plurality of access routers, said mobile node being so structured as to communicate with said access router connected with said access points, through radio communication with said access points within said communication available area, said</p>

handover method comprising:	communication handover method comprising:
a storing step of storing correspondence information describing a correspondence relationship between information on the access points and information on the access router connected to the access points into a predetermined information storage means of the mobile node;	a storing step of storing correspondence information describing a correspondence relationship between information on said access points and information on said access router connected to said access points into a predetermined information storage means of said mobile node;
a reception step of receiving information on another access point from the another access point when communication is switched over from an access point currently in communication to another access point;	a reception step of receiving information on another access point from said another access point when communication is switched over from an access point currently in communication to said another access point;
an acquisition step of acquiring information on that access router to which the another access point is connected from the correspondence information based on the information on the another access point received at the reception step;	an acquisition step of acquiring information on that access router to which said another access point is connected from said correspondence information based on the information on said another access point received at said reception step;

<p>a determination step of determining from the information on the access router acquired at the acquisition step whether or not changing address information currently assigned in connection of the subnet is necessary when communication is switched from the access point currently in communication to the another access point;</p>	<p>a determination step of determining from the information on said access router acquired at said acquisition step whether or not changing address information currently assigned in connection of said subnet is necessary when communication is switched from said access point currently in communication to said another access point;</p>
<p>an address hold control step of performing such control as to continuously use the currently assigned address information upon determination that it is not necessary to change the address information at the determination step;</p>	<p>an address control step of performing such control as to continuously use said currently assigned address information upon determination that it is not necessary to change said address information at said determination step.</p>
<p>an address generation step of generating address information in the subnet constituted by the access router from the information on the access router acquired at the acquisition step upon determination that it is necessary to change the address information at the</p>	

determination step;	
an address information transmission step of acquiring address information on the access router from the correspondence information, creating a message including the address information generated at the address generation step, and transmitting the message to the access router through the access point currently in communication.	

5. Claim 5 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 2 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 5 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
2) The communication handover method	5) The communication handover method

according to claim 1, comprising a process switching step of performing a process based on conventional handover when the information on the access router to which the another access point is connected cannot be acquired from the correspondence information at the acquisition step.	according to claim 1, comprising a process switching step of performing a process based on conventional handover when the information on said access router to which said another access point is connected cannot be acquired from said correspondence information at said acquisition step.
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6. Claim 6 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 3 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 3 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 6 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
3) The communication handover method according to claim 1, comprising: a correspondence information	6) The communication handover method according to claim 1, comprising: a correspondence information

reception step of receiving information relating to a change in the correspondence information from a predetermined communication apparatus which manages the correspondence information or the access router;	reception step of receiving information relating to a change in said correspondence information from a predetermined communication apparatus which manages said correspondence information or said access router;
a correspondence information update step of updating the correspondence information stored in the predetermined information storage means with the information relating to the change in the correspondence information.	a correspondence information update step of updating said correspondence information stored in said predetermined information storage means with the information relating to the change in said correspondence information.

7. Claim 7 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 4 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 7 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
4) The communication handover method according to claim 3, comprising an information check step of periodically checking the predetermined communication apparatus or the access router to see whether or not there is information relating to a new change of the correspondence information.	7) The communication handover method according to claim 6, comprising an information check step of periodically checking said predetermined communication apparatus or said access router to see whether or not there is information relating to a new change of said correspondence information.

8. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 5 of Co-Pending Application No. 10/579973 in view of Yano et al (Pub. No.: US 2003/0012179 A1).

Re claim 8, Co-Pending Application No. 10/579973 discloses the limitations as shown in the table below, except the limitations highlighted in bold.

Co-Pending Application No. 10/579973	Instant Application
5) The communication handover method according to claim 1, wherein a link layer address of the access point is used as the information on the access point, and a link layer address of the access router, a prefix length of the subnet constituted by the	8) The communication handover method according to claim 1, wherein a link layer address of said access point is used as the information on said access point, and a link layer address of said access router, a network prefix and a prefix length of said

access router, and an IP address of the access router are used as the information on the access router.	subnet constituted by said access router are used as the information on said access router.
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Yano et al. discloses a network prefix and a prefix length (paragraph 125). Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of Co-Pending Application No. 10/579973 and "Yano et al" as a whole to produce the invention as claimed with a reasonable expectation of labeling the access router for the benefit of allowing the mobile node to identify its current location.

9. Claim 12 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 15 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 15 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 12 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
15) A communication system structured in such a way that a plurality of access routers	12) A communication system in which a plurality of access routers each constituting

<p>each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of the plurality of access routers, and a mobile node present in the communication available area communicates with the access router connected with the access points, through radio communication with the access points,</p> <p>the mobile node has correspondence information storage means for storing correspondence information describing a correspondence relationship between information on the access points and information on the access router connected to the access points</p>	<p>a subnet are connected together over a communication network and at least one more of access points forming a unique communication available area are connected to each of said plurality of access routers, and a mobile node present in said communication available area is so structured as to communicate with said access router connected with said access points, through radio communication with said access points, wherein</p> <p>said mobile node has correspondence information storage means for storing correspondence information describing a correspondence relationship between information on said access points and information on said access router connected to said access points into a predetermined information storage means of said mobile node,</p>
<p>when communication is switched over from an access point currently in</p>	<p>said mobile node is structured in such a way that when communication is switched</p>

communication to another access point, information on that access router to which the another access point is connected is acquired based on the information the another access point is connected is from another access point by referring to the correspondence information, address information in the subnet constituted by the access router is generated from the acquired information on the access router and the address information in the subnet is transmitted to the access router through an access point currently in communication.	over from an access point currently in communication to another access point, information on that access router to which said another access point is connected is acquired based on the information on said another access point received from said another access point by referring to said correspondence information, and address information in said subnet constituted by said access router is generated from said acquired information on said access router.
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10. Claim 14 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 16 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 16 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 14 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
16) The communication step according to claim 15, structured in such a way as to execute a process by conventional handover when the mobile node cannot acquire the information on the access router to which the another access point is connected, from the correspondence information.	14) The communication system according to claim 12, structured in such a way as to execute a process by conventional handover when said mobile node cannot acquire the information on said access router to which said another access point is connected, from said correspondence information.

11. Claim 25 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 17 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 17 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 25 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
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17) The communication system according to claim 15, structured in such a way that a predetermined communication apparatus which manages the correspondence information is connected to the communication network and is so structured as to transmit the correspondence information to the mobile node.	25) The communication system according to claim 13, wherein a predetermined communication apparatus which manages said correspondence information is connected to said communication network, and is so structured as to transmit said correspondence information to said mobile node.
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12. Claim 26 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 18 of copending Application No. 10/579973. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claim is broader in every aspect than the co-pending application claim and is therefore an obvious variant thereof.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 18 of co-pending application no. 10/579973 as shown in the table below contains every element of claim 26 of the instant application.

Co-Pending Application No. 10/579973	Instant Application
18) The communication system according to claim 15, structured in such a way that	14) The communication system according to claim 13, wherein when a change in the

when a change in the information on the access point or the information on the access router occurs, the predetermined communication apparatus receives the information on the access point or the information on the access router after generation of the change, from the access router, updates the correspondence information managed by the predetermined communication apparatus, and informs the mobile node that the correspondence information has been changed.	information on said access point or the information on said access router occurs, said predetermined communication apparatus receives the information on said access point or the information on said access router after generation of the change, from said access router, updates said correspondence information managed by said predetermined communication apparatus, and informs said mobile node that said correspondence information has been changed.
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Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Claims 11 and 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Functional descriptive material such as computer programs and/or data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Such claimed data structures do not define any structural and functional

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interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized." See MPEP 2106.01(I). In the instant case, claims 11 and 23 do not meet the test above and therefore is rejected as non-statutory subject matter.

.Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 1, 2, 5-7, 9-12, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Funato et al. (Pub. No.: US 2003/0087646 A1).

Re claims 1 and 11, Funato et al. discloses a communication handover method and computer program for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of said plurality of access routers, said mobile node being so structured as to communicate with said access router connected with said access points, through radio communication with said access points within said communication available area, said communication handover method comprising:

a storing step of storing correspondence information describing a correspondence relationship between information on said access points and information on said access router connected to said access points into a predetermined information storage means of said mobile node (paragraphs 11,12, and 50);

a reception step of receiving information on another access point from said another access point when communication is switched over from an access point currently in communication to said another access point (paragraphs 47 and 49);

an acquisition step of acquiring information on that access router to which said another access point is connected from said correspondence information based on the information on said another access point received at said reception step (paragraph 50);
and

an address generation step of generating address information in said subnet constituted by said access router, from the information on said access router acquired at said acquisition step (paragraph 52 and 67).

Re claim 12, this system claim corresponds to the above method claim and therefore the analysis for this rejection has already been done.

Re claim 2, Funato et al. discloses the communication handover method according to claim 1, comprising an address information transmission step of transmitting said address information generated at said address generation step to said access router to which said access point currently in communication is connected, through said access point currently in communication (paragraphs 62, 67, and fig. 12 objects 228 and 230).

Re claim 5, Funato et al. discloses the communication handover method according to claim 1, comprising a process switching step of performing a process based

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on conventional handover when the information on said access router to which said another access point is connected cannot be acquired from said correspondence information at said acquisition step (paragraphs 12, 13, 16).

Re claim 6, Funato et al. discloses the communication handover method according to claim 1, comprising:

a correspondence information reception step of receiving information relating to a change in said correspondence information from a predetermined communication apparatus which manages said correspondence information or said access router (paragraph 51);

And

a correspondence information update step of updating said correspondence information stored in said predetermined information storage means with the information relating to the change in said correspondence information (paragraph 52).

Re claim 7, Funato et al. discloses the communication handover method according to claim 6, comprising an information check step of periodically checking said predetermined communication apparatus or said access router to see whether or not there is information relating to a new change of said correspondence information (paragraph 17).

Re claim 9, Funato et al. discloses the communication handover method according to claim 1, wherein said correspondence information describes a correspondence relationship between the information on said access point in said subnet to which said mobile node is currently connected, and the information on said access router, and a correspondence relationship between the information on said access point in

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said subnet present in a neighborhood of said subnet to which said mobile node is currently connected and the information on said access router (paragraphs 11 and 50).

Re claim 10, Funato et al. discloses the communication handover method according to claim 1, wherein said correspondence information describes only a correspondence relationship relating to said access router which employs a scheme of permitting said mobile node to generate the address information in said subnet, and said access point connected to said access router (paragraphs 62, 67, and fig. 12 objects 228 and 230).

Re claim 14, Funato et al. discloses the communication system according to claim 12, structured in such a way as to execute a process by conventional handover when said mobile node cannot acquire the information on said access router to which said another access point is connected, from said correspondence information (paragraphs 12, 13, 16).

Re claim 16, Funato et al. discloses the communication system according to claim 12, wherein when a change in the information on said access point or the information on said access router occurs, said predetermined communication apparatus receives the information on said access point or the information on said access router after generation of the change, from said access router, updates said correspondence information managed by said predetermined communication apparatus, and informs said mobile node that said correspondence information has been changed (paragraph 52).

17. Claims 1, 3, 4, 8, 11, 12, 13, 15, 17, 19, 20, 21, 22-23, 25, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Yano et al. (Pub. No.: US 2003/0012179 A1).

Re claims 1 and 11, Yano et al. discloses a communication handover method and computer program for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of said plurality of access routers, said mobile node being so structured as to communicate with said access router connected with said access points, through radio communication with said access points within said communication available area, said communication handover method comprising:

a storing step of storing correspondence information describing a correspondence relationship between information on said access points and information on said access router connected to said access points into a predetermined information storage means of said mobile node (paragraphs 59, 61, 141 and fig. 2);

a reception step of receiving information on another access point from said another access point when communication is switched over from an access point currently in communication to said another access point (paragraphs 110 and 141);

an acquisition step of acquiring information on that access router to which said another access point is connected from said correspondence information based on the information on said another access point received at said reception step (paragraphs 72, 110, and 141); and

an address generation step of generating address information in said subnet constituted by said access router, from the information on said access router acquired at said acquisition step (paragraph 59, 141, 110 and 111).

Re claims 3 and 23, Yano et al. discloses a communication handover method and computer program for use in a mobile node in a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one or more of access points forming a unique communication available area are connected to each of said plurality of access routers, said mobile node being so structured as to communicate with said access router connected with said access points, through radio communication with said access points within said communication available area, said communication handover method comprising:

a storing step of storing correspondence information describing a correspondence relationship between information on said access points and information on said access router connected to said access points into a predetermined information storage means of said mobile node (paragraph 9, 59);

a reception step of receiving information on another access point from said another access point when communication is switched over from an access point currently in communication to said another access point (paragraph 12);

an acquisition step of acquiring information on that access router to which said another access point is connected from said correspondence information based on the information on said another access point received at said reception step (paragraph 141);

a determination step of determining from the information on said access router acquired at said acquisition step whether or not changing address information currently assigned in connection of said subnet is necessary when communication is switched from

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said access point currently in communication to said another access point (paragraph 141); and

an address control step of performing such control as to continuously use said currently assigned address information upon determination that it is not necessary to change said address information at said determination step (paragraph 141).

Re claim 13, this system claim corresponds to the above method claim and therefore the analysis for this rejection has already been done.

Re claim 4, Yano et al. discloses the communication handover method according to claim 3, wherein at said determination step, comparison is made to check whether or not information relating to the subnet of said access router connected to said access point currently in communication and information relating to the subnet of said other access router connected to said another access point match with each other, and it is determined that changing said address information is not necessary when both information match with each other (paragraph 141).

Re claim 8, Yano et al. discloses the communication handover method according to claim 1, wherein a link layer address of said access point is used as the information on said access point, and a link layer address of said access router, a network prefix and a prefix length of said subnet constituted by said access router are used as the information on said access router (paragraph 125 and fig. 2).

Re claim 12, Yano et al. discloses a communication system in which a plurality of access routers each constituting a subnet are connected together over a communication network and at least one more of access points forming a unique communication available area are connected to each of said plurality of access routers, and a mobile node

present in said communication available are so structured as to communicate with said access router connected with said access points, through radio communication with said access points (paragraph 18), wherein

said mobile node has correspondence information storage means for storing correspondence information describing a correspondence relationship between information on said access points and information on said access router connected to said access points into a predetermined information storage means of said mobile node (paragraph 59, 61, and fig. 2),
and

said mobile node is structured in such a way that when communication is switched over from an access point currently in communication to another access point, information on that access router to which said another access point is connected is acquired based on the information on said another access point received from said another access point by referring to said correspondence information, and address information in said subnet constituted by said access router is generated from said acquired information on said access router (paragraph 110, 111, and 141).

Re claim 15, Yano et al. discloses the communication system according to claim 12, wherein a predetermined communication apparatus which manages said correspondence information is connected to said communication network, and is so structured as to transmit said correspondence information to said mobile node (paragraph 61, 18, and 21).

Re claim 17, Yano et al. discloses the communication system according to claim 12 structured in such a way that management of said correspondence information is

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performed by said access router to realize said predetermined communication apparatus by said access router (paragraph 19 and 61).

Re claim 19, Yano et al. discloses the communication handover method according to claim 3, comprising:

a correspondence information reception step of receiving information relating to a change in said correspondence information from a predetermined communication apparatus which manages said correspondence information or said access router (paragraph 70, 71, 72); and

a correspondence information update step of updating said correspondence information stored in said predetermined information storage means with the information relating to the change in said correspondence information (paragraph 70, 71, 72).

Re claim 20, Yano et al. discloses the communication handover method according to claim 3, wherein a link layer address of said access point is used as the information on said access point, and a link layer address of said access router, a network prefix length of said subnet constituted by said access router are used as the information on said access router (paragraph 8).

Re claim 21, Yano et al. discloses the communication handover method according to claim 3, wherein said correspondence information describes a correspondence relationship between the information on said access point in said subnet to which said mobile node is currently connected, and the information on said access router, and a correspondence relationship between the information on said access point in said subnet present in a neighborhood of said subnet to which said mobile node is currently connected and the information on said access router (paragraph 8).

Re claim 22, Yano et al. discloses the communication handover method according to claim 3, wherein said correspondence information describes only a correspondence relationship relating to said access router which employs a scheme of permitting said mobile node to generate the address information in said subnet, and said access point connected to said access router (paragraph 129 and 74).

Re claim 25, Yano et al. discloses the communication system according to claim 13, wherein a predetermined communication apparatus which manages said correspondence information is connected to said communication network, and is so structured as to transmit said correspondence information to said mobile node (paragraph 125 and fig. 1).

Re claim 26, Yano et al. discloses the communication system according to claim 13, wherein when a change in the information on said access point or the information on said access router occurs, said predetermined communication apparatus receives the information on said access point or the information on said access router after generation of the change, from said access router, updates said correspondence information managed by said predetermined communication apparatus, and informs said mobile node that said correspondence information has been changed (paragraphs 108 - 110).

Re claim 27, Yano et al. discloses the communication system according to claim 13 structured in such a way that management of said correspondence information is performed by said access router to realize said predetermined communication apparatus by said access router (paragraph 19 and 61).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al. (Pub. No.: US 2003/0012179 A1) and further in view of Funato et al. (Pub. No.: US 2003/0087646 A1).

Re claim 18, Yano et al. discloses the communication handover method according to claim 3, but fails to disclose comprising a process switching step of performing a process based on conventional handover when the information on said access router to which said another access point is connected cannot be acquired from said correspondence information at said acquisition step.

However, Funato et al. discloses comprising a process switching step of performing a process based on conventional handover when the information on said access router to which said another access point is connected cannot be acquired from said correspondence information at said acquisition step (paragraph 12, 13, and 16).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of "Yano et al." and "Funato et al." as a whole to produce the invention as claimed with a reasonable expectation of adjusting to a situation where handover

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information cannot be attained for the benefit of maintaining a connection during handover.

Re claim 24, Yano et al. discloses the communication system according to claim 13, but fails to disclose structured in such a way as to execute a process by conventional handover when said mobile node cannot acquire the information on said access router to which said another access point is connected, from said correspondence information.

However, Funato et al. discloses structured in such a way as to execute a process by conventional handover when said mobile node cannot acquire the information on said access router to which said another access point is connected, from said correspondence information (paragraph 12, 13, 16).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of “Yano et al.” and “Funato et al.” as a whole to produce the invention as claimed with a reasonable expectation of adjusting to a situation where handover information cannot be attained for the benefit of maintaining a connection during handover.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NALIN PILAPITIYA whose telephone number is (571)270-7122. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571)272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NALIN PILAPITIYA/
Examiner, Art Unit 4154

/Vu Le/
Supervisory Patent Examiner, Art Unit 4154